

Notice of Allowability

Application No.

10/799,983

Examiner

David D. Le

Applicant(s)

SMITH ET AL.

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 12 March 2004.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ The drawings filed on 12 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>03/12/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/799,983, filed on 12 March 2004. Claims 1-15 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 03/12/04

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, Kevin J. Heintz, on 08 September 2005.

The application has been amended as follows:

Specification:

- Page 8, lines 6-7, "the engine control system 22" has been replaced with --the control system 22--.

Claim 1:

- Line 4, "provide" has been changed to --provides--;
- Line 8, "the engine" has been replaced with --an engine--.

Allowable Subject Matter

4. Claims 1-15 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Claim 1:

The prior art of record fails to show or render obvious a vehicle transmission comprising an input shaft, a plurality of gear sets, a wet master clutch, at least one shift motor, a control system, and an auxiliary motor, as recited in the claim; specifically, wherein the auxiliary motor is operatively connected to the transmission to selectively apply a torque in a second direction of rotation, that is opposite to the first direction of rotation, when the control system determines that shifting into the neutral position is delayed for more than the predetermined period to overcome the residual torque and thereby facilitate shifting the transmission to the neutral position.

Claim 10:

The prior art of record fails to show or render obvious a method for controlling an automated vehicular transmission system that receives torque in a first direction of rotation from an engine, a multiple speed transmission having a wet clutch that is disengaged to permit shifting the transmission into neutral position, the wet clutch being subject to a residual torque in the first direction of rotation caused by the shearing of fluid between elements of the wet clutch that have a speed differential, and a control unit for shifting the transmission, as recited in the claim; specifically, wherein the method includes the step of applying a reverse output torque to the transmission in a second

direction of rotation when the control system determines that the predetermined period is exceeded to counteract the residual torque and allow the transmission to move to the neutral position.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Beaty (U. S. Patent No. 6,692,406) teaches a shift control strategy for use with an automated manual transmission coupled to a turbocharged internal combustion engine as shown in Fig. 1.
- Genise (U. S. Patent No. 6,916,270) teaches a driveline torque interrupt system as shown in Fig. 1.
- Amsallen (U. S. Patent No. 5,729,454) teaches a control system/method for automated mechanical transmission systems as shown in Figs. 1-2.
- Omote et al. (U. S. Patent No. 5,735,770) teaches a control system for vehicular drive unit as shown in Fig. 1.

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- Watanabe (U. S. Patent No. 6,393,928) teaches a control device for synchronous mesh automatic transmission as shown in Figs. 1-3.
- Kima (U. S. Patent No. 6,634,986) teaches a power transmission device as shown in Figs. 1-2.
- Beaty et al. (U. S. Patent Application Publication No. US 2005/0164827 A1) teaches a hybrid power train system as shown in Figs. 1-5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ddl


TISHA LEWIS
PRIMARY EXAMINER
Au 3681 9/14/05